

4. Policies for Rezoning Decisions

Criteria for Approving Rezoning Applications

Residential Rezoning Requests within the Urban Growth Areas

In any residential rezoning request for higher average densities than the current zoning of the property, *up to an average of three dwellings per net acre*, the applicant will be expected to meet the following minimum criteria:

- a. *Location.* The property must be located within a defined Urban Growth Area as shown on the Concept Plan Map for 2010.
- b. *Public Utilities.* The applicant must demonstrate that the proposed development will be served by public sewer (preferably both public water and public sewer), and that such service is either currently available or is planned and approved by the County and scheduled for construction to the site within a defined time period consistent with the other provisions of the Comprehensive Plan; with any necessary extensions to be funded by the applicant.
- c. *Road Access.* The property must have adequate and safe road access, with any necessary improvements provided by the applicant. Entrances onto existing public roads must be adequately spaced to provide safe access and maintain adequate capacity of the existing roadways. The applicant must dedicate any rights-of-way necessary for future widening of such existing roads.
- d. *Public Facilities and Amenities.* The applicant must provide a concept development plan of the entire property, showing future land uses, roads, walkways and trails, open spaces, public facility sites and the like.
- e. *Interparcel Access.* The concept plan must show one or more street connections to all adjoining properties that also lie within the Urban Growth Area and are not blocked by natural barriers; these connections must be constructed by the applicant at the time such portion of the concept plan is developed.
- f. *Pedestrian Access.* The rezoning proposal must include provisions for pedestrian mobility within the site, and safe and convenient connections for pedestrian traffic to adjacent sites and adjacent public roadways and trails.
- g. *Buffers.* Landscaped buffers must be provided at all edges of the site that abut existing or planned uses of lower intensities.
- h. *Public Facilities Costs.* In order to mitigate the direct impacts of the proposed development on the demand for public facilities, the applicant will be expected to provide mitigation for each proposed dwelling *in excess of two dwellings per net acre*, in the form of land, structures, cash, or some combination thereof. The

mitigation must be sufficient to offset a significant percentage of the average cost of all local capital facilities (schools, parks, government administration, etc.) for a typical dwelling unit in the County, as determined by the County's estimates of its capital costs. Specific guidelines for such proffers are outlined in the following section.

For any residential rezoning request for *average densities of three dwellings per net acre or higher*, the applicant will be expected to meet all of the proffer criteria, as well as provide a concept development plan that incorporates the traditional urban design principles contained in this Plan.

Proffer Guidelines

Net Residential Density

Expected Proffers

Over 2 Units per Net Acre

Land, structures, and/or cash to offset public facility impacts

Up to 3 Units per Net Acre

The above, plus items a. through g.

3 or More Units per Net
Acre

All of the above, plus a Traditional
Neighborhood Development Plan

Proffer Guidelines for Capital Facilities

Proffers are voluntary contributions made by developers to the County through the conditional zoning process. Proffers are binding commitments which become a part of the County's zoning ordinance as it pertains to a specific property. They may include one or more of a variety of provisions, including conditions or constraints on future actions or land uses, dedication of land, commitments to construct certain public improvements, and funds to finance public improvements.

Proffers provide flexibility for both the developer and the County in creating and evaluating land development projects and provide a means for the developer to mitigate the impacts of the proposed development and to meet the purposes of zoning as specified in the Code of Virginia.

The guidelines set forth below are meant to serve as a framework for the development community and the County in their efforts to determine and establish proffered conditions for the provision of public capital facilities as part of the approval of a conditional zoning proposal.

These guidelines are meant to supplement the rezoning criteria outlined in the previous section of the Plan and to provide both guidance and flexibility to the developer and to the County in helping to produce development that meets the long term goals of the County for sharing and balancing public facility costs, ensuring compatibility of land

uses, and providing adequate environmental protection, while also meeting the realistic land development needs of the market place.

Percentage of Capital Costs

Proffers for public facilities and amenities will be encouraged for each residential rezoning. Such proffers are expected to have a total value that is sufficient to represent a significant “down payment” on the cost of the various capital facilities to be constructed to serve the new residents, which the County estimates it will need to provide to that development for each unit *in excess of two dwellings per net acre*.

At the County’s discretion, these costs may be estimated on the basis of capital costs for the average unit overall, or on the basis of costs per unit type, differentiating between detached, attached, manufactured (“mobile”) and multi-family units. School costs may also be estimated separately. Proffers for roads and road improvements are considered a separate item, not included within the guideline due to the State’s responsibility for public roads. Road proffers should be based upon the specific needs of the site and its surrounding road network.

Direct Public Benefit

To qualify as a capital facility proffer under these guidelines, the land, facility or fund must be dedicated or deeded to the County or to another regional, state or federal agency which will ensure that it is used for the benefit of County citizens at large.

Measurable Value

The proffer must have a measurable value that can be quantified.

Principles.

The County will establish a series of principles to guide the proffer process in order to ensure that it is reasonable, effective and manageable. These should include:

Consistency of content. Proffers should be negotiated and accepted on a consistent basis from one project to another. Uniform standards for capital facilities, based upon the Comprehensive Plan and CIP should be followed in determining appropriate proffers for a particular project.

Consistency of format. The County should develop a format for proffer statements which contains consistent style and terminology so that proffers are comparable.

Rational Nexus. All proffers should have a direct and rational relationship to needs created by the project itself. To the maximum extent feasible, proffers should be built or otherwise allocated so as to directly benefit the particular project.

Coordination. Proffers from neighboring or adjacent developments should be coordinated to the maximum extent possible in order to ensure compatibility and consistency, and to avoid redundancy and conflict.

Other Proffers

Other proffers are expected as needed to meet the policies of the Plan, including the criteria for rezoning approvals and the State Code's purposes of zoning. Road proffers will normally be a key part of the proffer process, as will non-quantifiable conditions.

Examples of proffer elements could include the following:

- *Land dedication for public facilities.* Land may be dedicated by the developer for all or portions of specific public facility sites such as schools, community centers, and parks to fulfill the expected proffer guideline. If portions of a site are dedicated, they should be done only if the remaining amount of needed land is in place or is assured of being in place. If such assurance cannot be obtained, the proffer should be in the form of a cash contribution which the County will use to purchase an entire site for the facility. Any land dedicated for a public facility site must be approved by the County as being suitable for such a use in terms of access, topography, soils, etc. In addition, dedication of road right-of-way is often appropriate for certain projects which must become an integral part of the future long term road network.
- *Cash contributions for public facilities and/or services.* Cash contributions into the County's Capital Improvements Fund or a special proffer trust fund may be made to fulfill part of the proffer guideline, as well as for critical road improvements that may involve adjacent but off-site property. Such contributions are preferably made as full payments upon rezoning approval; however, the proffer may be structured so that payments are provided on a regular basis such as annually or upon construction of a specified number of units or square feet.
- *Construction of public facilities.* Actual construction of public facilities is another option to fulfill all or part of the proffer guideline. Examples could include schools, park facilities, bus shelters, community centers, or portions of any of these kinds of facilities. Capital equipment such as fire trucks may also be appropriate.
- *Reservation of sites for private, non-profit community facilities.* Sites for a variety of important but non-public facilities may be reserved for future dedication or sale. These may include churches and non-profit organizations such as service clubs.
- *Phased development.* A phasing plan may be proffered as part of the development concept plan. It may establish a rate and location of development on-site, which may be made dependent or contingent upon one or more of the following items:

- a pre-established yearly schedule or rate of construction, expressed as a not-to-exceed provision
 - amount of development completed on the site
 - amount of development completed adjacent to the site
 - road capacity or access
 - water and/or sewer capacity or access
- *Impact mitigation.* Additional provisions for reducing off-site impacts of noise, dust, light and visual appearance are encouraged when appropriate. Such provisions should be incorporated into proffer agreements and may include larger setbacks, landscaped buffers, restrictions on hours of operation, lighting design modifications, architectural design modifications including additional provisions for building heights, materials or form.
 - *Preservation of special environmental or historic features.* Special provisions for preserving unique or important environmental features are appropriate proffer provisions. Such features may include wooded areas, slopes or ridges, unique or rare habitats, historic sites and/or structures, archaeological sites, and similar resources.

5. Cooperation and Collaboration Among Local Jurisdictions

County and City

Interjurisdictional cooperation and citizen involvement are important themes of this comprehensive plan. Goal 14 of the plan calls for achieving “Community Identity, Cooperation, Spirit and Solidarity” and the concluding passage of the vision statement calls for cooperation among the local governments and the use of citizen involvement in public decision-making as a way to better solve community-wide problems.

The barriers to cooperation and collaboration between the County and City are significant, yet so are the opportunities. Because they have independent taxing and governmental powers, the City and County have a natural inclination to compete with each other, particularly for business and industry. Yet the two jurisdictions have collaborated on many important efforts, including the provision of regional water and sewer service, in conjunction with the nearby Towns.

Further cooperation on economic development, infrastructure and land use decisions would further enhance the efficiency of the two governments and the overall well-being and coordination of land use patterns along the borders. While the barriers to collaboration are significant, the state legislature encourages collaborative efforts between cities and counties and many tools are available including joint planning, revenue sharing, formation of regional authorities, special districts and the like, in order to ensure that the costs and benefits of growth are shared in a fair and reasonable manner between the jurisdictions, and that coordinated, high quality growth is encouraged.

Whether or not the current statewide moratorium on city annexations is lifted, it would be in the interests of both the City and County to work together to solve any fiscal, economic and infrastructure issues that might be the motivation for a City annexation effort.

It is the policy of this Plan that the City and County formalize their approach to collaboration and cooperation regarding land use and infrastructure policies through regular meetings of a special standing joint City-County Executive Committee that will develop a work program for instituting mutually-beneficial governance strategies for areas along the boundary. A key objective of this effort is to ensure that economic development initiatives and land use decisions benefit both jurisdictions and the whole community, rather than create competition between the two that causes detrimental impacts to one.

County and Towns

The County and Towns have a good track record of cooperation and collaboration on planning matters. It is the policy of this Plan that the County and each of the Towns continue to collaborate and cooperate in matters regarding land use and infrastructure policies for areas adjacent to the Towns, and to develop and maintain formal agreements for planned annexations that are in accord with the Comprehensive Plans of the County and each of the Towns.

D. Policies for Specific Geographic Areas

The County is divided into geographic policy areas based upon historic population centers, natural boundaries and road corridors. These areas are shown on the conceptual future land use maps in Section II, C, 3, and are named and described as follows:

Geographic Planning Areas

1. South and East of Harrisonburg

This area is expected to absorb the largest amount of future development and population growth of the County during the next several decades.

Phasing of Water and Sewer Service

Development within the defined 2010 phase. The County will allow the extension of public water and sewer to significant, defined portions of this planning area, in accord with the phasing concepts shown in this Comprehensive Plan. All major land development projects within the area designated for urban development in the 2010 period will be required to participate in the extension of public water and sewer facilities to the site, in accord with the County's conceptual public water and sewer phasing map.

Development outside of the defined 2010 phase. Any subdivision or site plan application that is proposed as a by-right project should have utilities extended to it or be designed so future public utilities and road improvements can be retrofitted, in accord with the Comprehensive Plan, unless the development capacity of the site is permanently limited through the use of conservation easements.

Properties not contiguous with the defined 2010 phase will not be permitted to extend sewer and water facilities to the site prior to that time, unless the Comprehensive Plan is amended. Independent and alternative community water or wastewater systems will only be permitted to solve existing water contamination problems.

Road Network

Street improvements within the defined 2010 Phase. The County will foster the road improvements in this area that are necessary to accommodate the expected future levels of development and traffic. All major land development projects within the area designated for urban development in the 2010 phase will be required to design and build an on-site street system that provides sufficient capacity for the proposed on-site traffic, provides for street connections to all adjoining properties, and provides the appropriate linkage to the surrounding road network that will contribute toward the ultimate grid network for the Urban Growth Area.

Significant improvements are expected for the Route 33 and Port Republic Road corridors within the Urban Growth Area, including key intersection improvements, as urban development in this area continues.

Land Uses and Public Facilities

Mixed Use Centers and Traditional Design Patterns. It is especially important that land development in the Urban Growth Area incorporates the principles of traditional neighborhood design, in order to limit the pressure on nearby agricultural land and in order to create a high capacity street network that will forestall the need for the new connector parkway road for as long as possible. In the long term, several Mixed Use Centers are encouraged in this planning area. In the 2010 time frame, expansion of the commercial node at Massanetta Springs Road and Route 33 is envisioned, as well as expansion of the node at Boyers Road and Port Republic Road. Expansion of these areas should be designed so as to establish the beginning of true Mixed Use Centers at these locations. Commercial uses should be concentrated in these nodes and not located in a fragmented strip pattern along the major corridors.

Land uses outside the defined 2010 phase. Land development should be low density, using wells and septic systems, and should be clustered, where feasible, to preserve large tracts of open land for continued agricultural uses. Low-impact rural businesses, such as bed and breakfast establishments, would also be encouraged in this area.

Special Environmental Constraints

The major constraints to development in this area are the stream valleys and floodplains, as well as limited areas of steep topography. These must be protected to the greatest extent possible during the development process, including allowing some flexibility on road width and grades in steeper areas. The Civil War battlefields lie to the east of this part of the Urban Growth Area, which further reinforces the importance of the Urban Growth Boundary serving as a long term, hard edge for urban growth in this area.

2. North of Harrisonburg

Much like the other growth areas around the City, this area of the County is expected to absorb a significant amount of the future development and population growth of the County during the next several decades as development continues to occur close to the City.

Phasing of Water and Sewer Service

Development within the defined 2010 phase. The County will allow the extension of public water and sewer to the areas immediately north of the city, as defined in the phasing concepts shown in this Comprehensive Plan. All major land development projects within the area designated for urban development in the 2010 phase will be required to participate in the extension of public water and sewer facilities to the site, in accord with the County's conceptual public water and sewer phasing map.

Development outside of the defined 2010 phase. Any subdivision or site plan application that is proposed as a by-right project should have utilities extended to it or be designed so future public utilities and road improvements can be retrofitted, in accord with the Comprehensive Plan, unless the development capacity of the site is permanently limited through the use of conservation easements.

Properties not contiguous with the defined 2010 phase will not be permitted to extend sewer and water facilities to the site prior to that time, unless the Comprehensive Plan is amended. Independent and alternative community water or wastewater systems will only be permitted to solve existing water contamination problems.

Road Network

Street improvements within the defined 2010 phase. The County will foster the road improvements in this area that are necessary to accommodate the expected future levels of development and traffic. All major land development projects within the area designated for urban development in the 2010 phase will be required to design and build an on-site street system that provides sufficient capacity for the proposed on-site traffic, provides for street connections to all adjoining properties, and provides the appropriate linkage to the surrounding road network that will contribute toward the ultimate grid network for the Urban Growth Area.

In the long term, improvements are expected for the Route 11 and Route 42 corridors within the Urban Growth Area, including the coordination of new entrances for businesses and residential streets along Route 11 as urban development along this corridor continues.

Land Uses and Public Facilities

Mixed Use Centers and Traditional Design Patterns. It is important that residential land development in this part of the Urban Growth Area also incorporates the principles of traditional neighborhood design. Large portions of this area are reserved for large scale industrial uses which are generally less amenable for traditional design patterns. In the long term, an important Mixed Use Center is envisioned to the north of the industrial area. In the nearer term, continued infill of commercial uses along Route 11 is expected, but with coordinated, shared access, rather than the strip pattern that has emerged there.

Land uses outside the defined 2010 phase. Land development outside of defined 2010 phase should be very low density, using wells and septic systems, and should be clustered, where feasible, to preserve large tracts of open land for continued agricultural uses. Low-impact rural businesses would also be encouraged in this area.

Special Environmental and Historic Resource Constraints

The major constraints to development in this area are the stream valleys and floodplains, as well as significant areas of karst topography. These must be protected to the greatest extent possible during the development process, including allowing some flexibility on road width and curve radii, as well as providing setbacks from existing or potential sinkholes.

3. McGaheysville and Vicinity

Due to recent development trends, the presence of Massanutten Resort, the nearby Merck and Coors plants, the existing public utility system, and the good motor vehicle access provided by Route 33, the area is expected to absorb a significant amount of the future development and population growth of the County during the next several decades. However, this area is not as high of a priority for absorbing future growth as the areas around the City.

Phasing of Water and Sewer Service

Development within the defined 2010 phase. The County will allow incremental extensions of public water and sewer lines to serve the 2010 phase, in accord with the phasing concepts shown in this Comprehensive Plan.

Development outside of the defined 2010 phase. Any subdivision or site plan application that is proposed as a by-right project in an area that is shown within either

the 2020 or 2050 phase, but not within the 2010 phase, should be designed so future public utilities and road improvements can be retrofitted, in accord with the Comprehensive Plan, unless the development capacity of the site is permanently limited through the use of conservation easements.

Properties located outside of the defined 2010 phase will not be permitted to extend sewer and water facilities to the site prior to that time, unless the Comprehensive Plan is amended. Independent and alternative community water or wastewater systems will only be permitted to solve existing water contamination problems.

Road Network

Street improvements within the defined 2010 phase. The County will foster the road improvements in this area that are necessary to accommodate the expected future levels of development and traffic. All major land development projects within the area designated for urban development in the 2010 period will be required to design and build an on-site street system that provides sufficient capacity for the proposed on-site traffic, provides for street connections to all adjoining properties, and provides the appropriate linkage to the surrounding road network that will contribute toward the ultimate grid network that generally runs parallel to Route 33.

In the long term, improvements are expected for the Route 33 corridor to accommodate increased travel demand. As development continues along this corridor, it is critical that new access points be strictly limited and a system of parallel roads be constructed as land is developed, so that properties along the corridor are gradually interconnected and a parallel road system is created.

Land Uses and Public Facilities

Mixed Use Centers and Traditional Design Patterns. It is important that commercial development on the Route 33 corridor be concentrated rather than dispersed. One major node is identified in the conceptual land use plan just west of the intersection with Island Ford Road. Residential land development is envisioned primarily as infill development between Route 33 and McGaheysville Road, as well as expanded development north along McGahey Lane, south along Island Ford Road, and along the south side of McGaheysville Road. This development pattern will tend to strengthen the fabric and identity of McGaheysville as an important place in the County, especially if the development incorporates the traditional design principles called for in this plan.

Land uses outside the defined 2010 phase. Land development outside of the defined 2010 phase should be very low density, using wells and septic systems, and should be clustered, where feasible, to preserve large tracts of open land for continued agricultural uses. Low-impact rural businesses would also be encouraged in this area.

Special Environmental and Historic Resource Constraints

The major constraints to development in this area are the stream valleys and floodplains, as well as the steep slopes of the southern ridge of Massanutten Mountain.

4. Massanutten and Vicinity

Due to the presence of Massanutten Village and Woodstone Meadows, the nearby Merck and Coors plants, the existing utility system, and Route 33 access, the area is expected to continue to absorb growth during the next several decades.

Phasing of Water and Sewer Service

Development within the defined 2010 phase. The County will allow incremental extensions of public water and sewer lines to serve the 2010 phase, in accord with the phasing concepts shown in this Comprehensive Plan.

Development outside of the defined 2010 phase. Any subdivision or site plan application that is proposed as a by-right project in an area that is shown within either the 2020 or 2050 phase, but not within the 2010 phase, should be designed so future public utilities and road improvements can be retrofitted, in accord with the Comprehensive Plan, unless the development capacity of the site is permanently limited through the use of conservation easements or a master planned open space.

Properties located outside of the defined 2010 phase will not be permitted to extend sewer and water facilities to the site prior to that time, unless the Comprehensive Plan is amended. Independent and alternative community water or wastewater systems will only be permitted to solve existing water contamination problems.

Road Network

Street improvements within the defined 2010 Phase. The County will foster the road improvements in this area that are necessary to accommodate the expected future levels of development and traffic. All major land development projects within the area designated for urban development in the 2010 phase will be required to design and build an on-site street system that provides sufficient capacity for the proposed on-site traffic, provides for street connections to all adjoining properties, and provides the appropriate linkage to the surrounding road network that will contribute toward the ultimate grid network for the Urban Growth Area.

Land Uses and Public Facilities

Mixed Use Centers and Traditional Design Patterns. It is important that commercial development be concentrated rather than dispersed. One major node is identified in the conceptual land use plan at the intersection of Resort Drive and Route 33, which should be designed so as to establish the beginning of a true Mixed Use Center at this location.

Commercial uses should be concentrated in this node and not located in a fragmented strip pattern on Route 33. Residential development is envisioned as new and infill development, as well as the continued expansion of the existing timeshare communities of Massanutten and Woodstone Meadows, in accord with prior zoning approvals. This development pattern will tend to strengthen the fabric and identity of Massanutten and the vicinity as an important place in the County, especially if the development incorporates the traditional design principles called for in this plan.

Land uses outside the defined 2010 phase. Land development outside of the defined 2010 phase should be very low density, using wells and septic systems, and should be clustered, where feasible, to preserve large tracts of open land for continued agricultural uses. Low-impact rural businesses would also be encouraged in this area.

Special Environmental Constraints

The major constraints to development in this area are the stream valleys, floodplains, and steep slopes of Massanutten Mountain. These must be protected to the greatest extent possible by prohibiting development where inappropriate, or by protecting these areas during the development process, including allowing some flexibility on road width and grades in steeper areas.

5. Around the Towns

BRIDGEWATER - DAYTON - MT. CRAWFORD

The area between these towns and the City is expected to absorb a significant amount of the future development and population growth of the County during the next several decades.

Phasing of Water and Sewer Service

Development within the defined 2010 phase. The County will continue to cooperate with the towns regarding future growth around the towns through the continued use of formal annexation agreements, as entered into in recent years. The expectation is that the towns will annex land as needed for development and provide public utility service to those areas that it annexes.

Development outside of the defined 2010 phase. Any subdivision or site plan application that is proposed as a by-right project should have utilities extended to it or be designed so future public utilities and road improvements can be retrofitted, in accord with the Comprehensive Plan, unless the development capacity of the site is permanently limited through the use of conservation easements.

Properties not contiguous with the defined 2010 phase will not be permitted to extend sewer and water facilities to the site prior to that time, unless the Comprehensive Plan is amended. Independent and alternative community water or wastewater systems will only be permitted to solve existing water contamination problems.

Road Network

Street improvements within the defined 2010 phase. The County and the towns will foster the road improvements in this area that are necessary to accommodate the expected future levels of development and traffic. All major land development projects within the Urban Growth Areas in the 2010 phase will be required to design and build an on-site street system that provides sufficient capacity for the proposed on-site traffic, provides for street connections to all adjoining properties, and provides the appropriate linkage to the surrounding road network that will contribute toward the ultimate grid network for the Urban Growth Area. The street network should be an extension of the town grid networks wherever possible.

Land Uses and Public Facilities

This Comprehensive Plan establishes the generally preferred pattern of land use in the town growth areas; development there is expected to follow this pattern, in general accord with the phasing concepts shown in this Plan. Any adjustments to the land uses for the defined town growth areas in this Plan should be made on a mutually cooperative basis through close coordination between the town and the County.

Special Environmental Constraints

The major constraints to development in this area are the stream valleys and floodplains. These must be protected to the greatest extent possible during the development process, including allowing some flexibility on road width and grades in steeper areas. The Oak Grove Agricultural and Forestal District (AFD), which is located between Urban Growth Areas of the City and Dayton, should be maintained as long as feasible, and can serve to reinforce the identities of the City and the towns as separate urban places.

BROADWAY - TIMBERVILLE

The area around and between these towns is expected to experience a moderate amount of the future development and population growth during the next several decades.

Phasing of Water and Sewer Service

Development within the defined 2010 phase. The County will continue to cooperate with the towns regarding future growth around the towns through the continued use of formal annexation agreements, as entered into in recent years. The expectation is that

the towns will annex land as needed for development and provide public utility service to those areas that it annexes.

Development outside of the defined 2010 phase. Any subdivision or site plan application that is proposed as a by-right project should have utilities extended to it or be designed so future public utilities and road improvements, in accord with the Comprehensive Plan, unless the development capacity of the site is permanently limited through the use of conservation easements.

Properties not contiguous with the defined 2010 phase will not be permitted to extend sewer and water facilities to the site prior to that time, unless the Comprehensive Plan is amended. Independent and alternative community water or wastewater systems will only be permitted to solve existing water contamination problems.

Road Network

Street improvements within the defined 2010 phase. The County and the towns will foster the road improvements in this area that are necessary to accommodate the expected future levels of development and traffic. All major land development projects within the Urban Growth Areas in the 2010 phase will be required to design and build an on-site street system that provides sufficient capacity for the proposed on-site traffic, provides for street connections to all adjoining properties, and provides the appropriate linkage to the surrounding road network that will contribute toward the ultimate grid network for the Urban Growth Area. The street network should be an extension of the town grid networks wherever possible.

Land Uses and Public Facilities

This Comprehensive Plan establishes the generally preferred pattern of land use in the Urban Growth Areas and development there is expected to follow this pattern, in general accord with the phasing concepts shown in this Plan. Any adjustments to the land uses for the Urban Growth Areas in this Plan should be made on a mutually cooperative basis through close coordination between the town and the County. Two potential future Mixed Use Centers are shown at the edge of Broadway, one on Mayland Road and one on Harpine Highway. These should be designed and developed using the traditional neighborhood design principles in order to reinforce the fabric of the Town rather than undermine it.

Special Environmental Constraints

The major constraints to development in this area are the stream valleys and floodplains. These should be protected to the greatest extent possible during the development process, including allowing some flexibility on road width and grades in steeper areas.

ELKTON

The area around the town is expected to experience a moderate amount of the future development and population growth during the next several decades.

Phasing of Water and Sewer Service

Development within the defined 2010 phase. The County will continue to cooperate with the Town regarding future growth around it through the continued use of formal annexation agreements. The expectation is that the Town will annex land as needed for development and provide public utility service to those areas that it annexes.

Development outside of the defined 2010 phase. Any subdivision or site plan application that is proposed as a by-right project should have utilities extended to it or be designed so future public utilities and road improvements can be retrofitted, in accord with the Comprehensive Plan, unless the development capacity of the site is permanently limited through the use of conservation easements.

Properties not contiguous with the defined 2010 phase will not be permitted to extend sewer and water facilities to the site prior to that time, unless the Comprehensive Plan is amended. Independent and alternative community water or wastewater systems will only be permitted to solve existing water contamination problems.

Road Network

Street improvements within the defined 2010 phase. The County and the town will foster the road improvements in this area that are necessary to accommodate the expected future levels of development and traffic. All major land development projects within the Urban Growth Area in the 2010 phase will be required to design and build an on-site street system that provides sufficient capacity for the proposed on-site traffic, provides for street connections to all adjoining properties, and provides the appropriate linkage to the surrounding road network that will contribute toward the ultimate grid network for the Urban Growth Area. The street network should be an extension of the town grid networks wherever possible.

Land Uses and Public Facilities

This Comprehensive Plan establishes the generally preferred pattern of land use in the Urban Growth Area and development there is expected to follow this pattern, in general accord with the phasing concepts shown in this Plan. Any adjustments to the land uses for the Urban Growth Area in this Plan should be made on a mutually cooperative basis through close coordination between the town and the County. A potential future Mixed Use Center is shown on the western edge of the Urban Growth Area, where Rockingham Pike and Route 33 converge. Expansions of this existing commercial node should be designed and developed using the traditional neighborhood design principles in order to extend the fabric of the town into that area.

Special Environmental Constraints

The major constraints to development in this area are the stream valleys and floodplains, especially the floodplain of the Shenandoah River, as well as some areas of steep slopes. These should be protected to the greatest extent possible during the development process, including allowing some flexibility on road width and grades in steeper areas.

GROTTOES

The area around the town is expected to experience a moderate amount of the future development and population growth during the next several decades.

Phasing of Water and Sewer Service

Development within the defined 2010 phase. The County will continue to cooperate with the Town regarding future growth around it through the continued use of formal annexation agreements. The expectation is that the Town will annex land as needed for development and provide public utility service to those areas that it annexes.

Development outside of the defined 2010 phase. Any subdivision or site plan application that is proposed as a by-right project should have utilities extended to it or be designed so future public utilities and road improvements can be retrofitted, in accord with the Comprehensive Plan, unless the development capacity of the site is permanently limited through the use of conservation easements.

Properties not contiguous with the defined 2010 phase will not be permitted to extend sewer and water facilities to the site prior to that time, unless the Comprehensive Plan is amended. Independent and alternative community water or wastewater systems will only be permitted to solve existing water contamination problems.

Road Network

Street improvements within the defined 2010 phase. The County and the towns will foster the road improvements in this area that are necessary to accommodate the expected future levels of development and traffic. All major land development projects within the Urban Growth Area in the 2010 phase will be required to design and build an on-site street system that provides sufficient capacity for the proposed on-site traffic, provides for street connections to all adjoining properties, and provides the appropriate linkage to the surrounding road network that will contribute toward the ultimate grid network for the Urban Growth Area. The street network should be an extension of the town grid networks wherever possible.

Land Uses and Public Facilities

This Comprehensive Plan establishes the generally preferred pattern of land use in the Urban Growth Area and development there is expected to follow this pattern, in general accord with the phasing concepts shown in this Plan. Any adjustments to the land uses for the Urban Growth Area in this Plan should be made on a mutually cooperative basis through close coordination between the town and the County. This Plan calls for mainly residential growth around the town, with commercial uses remaining within the existing corporate limits to further reinforce the existing town fabric.

Special Environmental Constraints

The major constraints to development in this area are the stream valleys and floodplains, especially the floodplain of the Shenandoah River, as well as some areas of steep slopes. These should be protected to the greatest extent possible during the development process, including allowing some flexibility on road width and grades in steeper areas.

6. Rural Areas

The rural areas of the County are expected to experience a significant amount of growth pressure, but as the policies of this plan are implemented, these areas should only absorb a small proportion of the total future development and population growth of the County. The County's objective is to limit future residential growth in the rural areas to only 20% of the total residential growth in the County, and that the location and design of this development be in a manner that causes the least possible conflict to the agricultural land uses. Agricultural and forestal uses are expected to continue in these areas.

Water Supply and Wastewater Disposal

Additional development in the defined rural areas must rely on on-site wells and septic fields for water and wastewater treatment. Community-scale treatment systems for new residences will be discouraged as well, due to maintenance issues.

Road Network

Road improvement priorities in the rural areas will be focused on necessary upgrades to the major corridors that take traffic through the rural areas, and on road and bridge facilities that serve the agricultural industry. Private roads will be discouraged. New development should front on newly constructed public roads rather than degrading the safety and capacity of the existing public road system through a pattern of strip development.

Land Uses and Public Facilities

The rural areas should remain in agricultural, forestal and very low density land uses for the foreseeable future. The County will take various measures to encourage this land use pattern, as outlined in this plan.

Special Environmental Constraints

There are numerous environmental constraints to development and land use changes in the rural areas. These constraints are, in many cases, also valuable opportunities for economic development, and thus the County will take a variety of measures to protect these resources as outlined in this plan.

E. Strategies, Policies and Actions for Specific Major Resources

This Section of the Plan presents a set of strategies, policies and actions for the County to pursue to achieve each of the defined goals for the County's major social, economic and environmental resources. For each major resource topic, a brief summary of the background data and analysis is presented, followed by a restatement of the goals for that topic, and then an outline of the strategies, policies and actions for the topic.

As noted previously, the term "strategy" refers to a broad and general approach toward achieving a goal. A strategy is carried out through specific implementation actions which can include projects, programs and regulations. In this context, the term can sometimes be used interchangeably with the term "policy" which refers to a specific course of action.

Following the strategies is a detailed Implementation Plan that sets priorities for action so that the County has a clear schedule for moving forward (Section III). The Implementation Plan defines for each action the process to be followed, the responsible agent, the funding mechanism, and reporting procedures for tracking progress.

1. Natural Resources

Summary of Background and Analysis

Because a Comprehensive Plan focuses many of its policies on the use of land, it is important to understand the qualities of that land and its natural resources. The geology, topography, soils, vegetation, wildlife, and water resources provide a framework for wise land use decisions that avoid environmental hazard areas and take advantage of these natural resources.

Geology

Rockingham County is located within two broad geologic provinces: the Blue Ridge province, affecting the south east corner of the county, and the Ridge and Valley

province, which underlies the remainder of the County. The Ridge and Valley province contains ridges of sandstone and shale and valleys of limestone and dolomite. One of the most important characteristics of the limestone and dolomitic rock of Rockingham County is its tendency to develop caves, solution channels and sinkholes. The geologic term for such areas is “karst.” Karst areas are particularly susceptible to groundwater contamination because of the direct connection between the surface and groundwater through sinkholes and along cracks in surface bedrock. Because many homes in Rockingham County depend on groundwater for their source of drinking water, measures to manage land use in karst areas are especially important. Such measures might include: prohibition of waste disposal in sinkholes, requirements that stormwater be directed away from sinkholes, setbacks from sinkholes, and spill containment measures for industrial and other uses handling hazardous or potentially polluting materials.

Topography

The County’s geology has greatly influenced the topography, which in turn has influenced how the land has been settled and used. Rockingham County’s broad valley floor, where most agricultural activity and development has occurred, extends north and south between the steep ridges of the Blue Ridge and Appalachian Mountains. At Penn Laird, Massanutten Mountain divides the valley separating the North and South Fork Shenandoah River watersheds. From the gentle to rolling slopes in the valley, the steep mountain ridges rise more than 2,000 feet. These mountain ridges provide a beautiful setting that is highly valued by County residents and was mentioned often in public meetings as a special feature of the County that should be protected.

Soils

The USDA Soil Conservation Service, now called the Natural Resources Conservation Service, published the *Soil Survey of Rockingham County*, which provides a detailed description of the County’s soil types and their approximate locations throughout the County. It identifies two soil characteristics of particular importance to the Comprehensive Plan – prime agricultural soils and soils with severe limitations for septic systems. Prime farmland includes those soils that are best suited to producing food, feed, forage and fiber. These should be preserved for farming to the maximum extent possible. Approximately 70% of the County’s soils are rated as having severe limitations for septic drainfields. Even though there are a number of alternative systems permitted today for handling on-site sewage disposal, soils continue to limit development in areas not served by public sewer systems.

Vegetation and Wildlife

According to records of the Virginia Division of Natural Heritage, Rockingham County harbors a number of unique natural communities. Two of the most significant include:

- Shenandoah Valley Sinkhole Ponds: Intermittently to permanently flooded basin wetlands located on broad alluvial fan deposits stretching along the western foot of the Blue Ridge, one of Virginia's most unusual and conservation-worthy ecosystems.
- Eastern Hemlock Forest: Hemlock forests occupying moderately moist, sheltered habitats throughout the mountains. A particularly outstanding example in Rockingham County is found in the Skidmore Fork watershed in George Washington National Forest.

Water Resources

Two major drainage systems flow through the County, the South Fork Shenandoah River and the North Fork Shenandoah River. Rockingham's water supplies are drawn either at the surface through stream and spring withdrawals or from groundwater through wells. Water is drawn for municipal water supplies from all types of sources. Many residential, business and industrial users in the rural parts of the County draw groundwater from wells. Agricultural irrigation is also a large water user, primarily from surface waters.

Because of recent years of severe drought, water supply has become a major concern in the Shenandoah Valley. Both the quantity and the quality of surface and ground water resources for public drinking are at issue. The Shenandoah Summit, an ad-hoc group of elected officials, government staff, university representatives, citizens and private sector interests, meeting to discuss regional issues within the Central Shenandoah Planning District, has made water supply its top priority for study and regional action. The State has also become quite interested in karst area groundwater quantity and quality for water supply. The Karst Groundwater Technology Advisory Group, established by the General Assembly, has developed recommendations for the study of groundwater in karst areas.

Another water supply effort currently being carried out by the State is the Virginia Source Water Assessment Program (SWAP). This program, mandated by the 1996 Amendments to the Safe Drinking Water Act, requires Virginia to delineate the recharge / influence areas for each drinking water supply and assess the risk of contamination from pollutant sources in those areas. The SWAP is administered by the Virginia Department of Health (VDH), which is required to complete its study of all public water systems by May 2003. Some localities are choosing to perform their own source water assessments so that they can ensure assessments are thorough and timely.

Surface water quality has become a major issue for the County as well in recent years due to several mandatory and voluntary water quality protection programs initiated by EPA, the State of Virginia, and the Chesapeake Bay states. The first is the TMDL program and the second is the Shenandoah and Potomac River Basins Tributary

Nutrient Reduction and Nutrient Cap Strategies. The Federal Clean Water Act requires states to identify and clean up water bodies not in compliance with Federal and State water quality standards. Virginia has been required to prepare a list of such impaired waters and to determine the total maximum daily (pollutant) loads or TMDLs for each impaired water. Rockingham County has 20 TMDL studies on the list.

While the TMDL program has as its basis the Clean Water Act and the law enforcement backing of the Federal government, the Shenandoah and Potomac River Basins Tributary Nutrient Reduction and Nutrient Cap Strategies are based on agreements between the Chesapeake Bay watershed states, agreements that are not federally enforced. In 1987, Virginia, Maryland, Pennsylvania and the District of Columbia signed a Chesapeake Bay Agreement that recognized the role of nutrient pollution (nitrogen and phosphorus) in the Chesapeake Bay's water quality problems. In the agreement, the states set the goals of reducing controllable annual nitrogen and phosphorus loads into the Bay waters by 40 percent by 2000 and of capping them at that level thereafter. With the cooperation of Rockingham County and other localities in the Southern Shenandoah Region, a tributary strategy was developed and adopted in 1996. Currently, the Shenandoah and Potomac Basins have not met the 40% nitrogen reduction goal for either point or non-point sources, though the current rate of implementation of Best Management Practices should close the gap for non-point sources. Rockingham County has indicated to DEQ its willingness to work on closing the gap and capping pollutant levels, and wants urban areas in the watershed to do the same.

Another important water resource issue for the county is flooding. The Federal Emergency Management Agency has prepared maps delineating the floodways, 100-year floodplains, and 500-year floodplains for the County's major rivers and streams. The County regulates development in the 100-year floodplain and prohibits encroachment in the floodway. The County's maps were prepared in 1986. As land has developed in the County over time, the amount of impervious surfaces, such as roads, parking lots and rooftops, has increased, causing flood levels to increase. It is likely that the County's floodplain maps are no longer accurate. In addition, in recent years, numerous significant floods have threatened and sometimes destroyed homes, businesses, and personal property. It is appropriate at this time to seek better mapping of floodplains in the County and to re-examine floodplain regulations to ensure safety from flood damage. It is also appropriate to consider setting aside floodplain lands as open space that could become the backbone of a Countywide greenway system for flood protection, water quality protection, wildlife habitat preservation, and perhaps even passive recreation.

Noise and Light Pollution

Noise from I-81 and light pollution from commercial and industrial properties (and to an increasing extent, rural residential properties) have also been identified as environmental issues of concern in Rockingham County. Land uses along I-81 should continue to be mostly rural with urban portions planned for commercial and industrial

uses primarily. Light pollution should be controlled with property lighting design, which should be regulated through the Zoning Ordinance.

Air Pollution

Rockingham County is currently considered to be “in attainment” of the National Ambient Air Quality Standards. Recent regulations issued by EPA have revised the standard for ozone, making it more stringent. A number of communities across Virginia have been recommended by the Virginia Department of Environmental Quality for ozone nonattainment designation based on monitored data, including Shenandoah Valley communities of Frederick County and Winchester, the Roanoke area, and the portions of Page and Madison counties lying within the Shenandoah National Park. These communities, with help from DEQ, will have to prepare nonattainment plans to deal with the problem. DEQ officials in the Valley regional office indicate that Rockingham County could also be in violation of the new ozone standard, however, there is no ozone monitor in the County to determine its ambient ozone levels.

Natural Resource Strategies, Policies and Actions

Goal 1. Preserve the Quality of Natural Resources. (surface water, groundwater, air, soil, quiet, night sky)

Strategy 1.1: Protect water quality.

Policies and Implementation Actions:

- 1.1.1. Consider requiring nutrient management plans for all intensive agricultural enterprises (which are now required only for poultry).
- 1.1.2. Continue to participate in TMDL (total maximum daily [pollutant] load) water quality studies for impaired streams.
- 1.1.3. Seek continued and expanded funding for agricultural BMPs.
- 1.1.4. Continue to follow and update the current Board of Supervisors’ position in the Interim Nutrient Cap Strategy for the Shenandoah and Potomac River Basins.
- 1.1.5. Request extensive public participation in all water quality programs sponsored by Department of Environmental Quality (DEQ) and other governmental agencies.
- 1.1.6. Take a comprehensive approach to stormwater management.
- 1.1.7. Limit impervious surfaces through lot coverage ratios; amend the Zoning and Subdivision Ordinances to accomplish this.
- 1.1.8. Pursue better mapping of floodplains in the County and re-examine floodplain regulations to ensure safety from flood damage.

- 1.1.9. Promote the setting aside of floodplain lands as open space during the development process to form the backbone of a countywide greenway system for flood protection, water quality protection, wildlife habitat preservation, and passive recreation.
- 1.1.10 Take advantage of opportunities to respond to state water quality standards during scheduled reviews.
- 1.1.11 Gather more information to better manage ground water resources.
- 1.1.12 Explore remediation for impaired ground water quality in the Bridgewater/Muddy Creek area.
- 1.1.13 Support the efforts of the Pure Water 2000 Forum.
- 1.1.14 Encourage low-impact development whenever appropriate and feasible.
- 1.1.15 Promote alternative wastewater treatment systems where appropriate.
- 1.1.16 Encourage a low density and dispersed pattern of septic fields in the rural areas in order to reduce the chances of groundwater contamination.

Strategy 1.2: Protect community water supply sources.

Policies and Implementation Actions:

- 1.2.1. Develop wellhead protection programs for public water recharge areas.
- 1.2.2. Explore the feasibility of the County performing its own source water assessments for the public water systems of its Towns and sanitary systems that use wells, with priority in karst areas; include the delineation of well recharge areas and an inventory of potential contaminant sources within these areas.
- 1.2.3. Continue to use the Shenandoah Summit water supply planning project as a forum for regional efforts regarding water supply, quality and quantity.
- 1.2.4. Expand cooperation with other water providers to address regional needs.
- 1.2.5. Expand public education programs about water resources.
- 1.2.6. Discourage high density or high intensity development in areas that are likely to have high groundwater recharge potential.
- 1.2.7. Encourage, through the development approval process, the establishment of buffers 100 feet in width along major stream corridors and tributaries, defined as those watersheds which drain an area of one square mile or greater. Such buffers should be maintained in a natural condition with little or no clearing, grading or other land disturbing activity, except for that necessary to locate any essential utility lines or similar public facilities. Provide for such buffers to be created through the clustering of development density so as to maintain a reasonable overall development potential for tracts affected by the stream buffer policy.

Strategy 1.3: Protect environmentally sensitive areas.***Policies and Implementation Actions:***

- 1.3.1. Consider amending the Zoning Ordinance to prohibit development in delineated wetland areas; require delineation as part of development applications and focus on areas where most wetlands are found.
- 1.3.2. Consider amending the Zoning Ordinance to limit development, clearing or grading on steep slopes, especially those of 25% or greater.
- 1.3.3. Incorporate BMPs into land development regulations in both the Zoning and Subdivision Ordinances.
- 1.3.4. Identify and protect habitats of rare and threatened species.
- 1.3.5. Encourage businesses that do not place excessive demands on natural resources.
- 1.3.6. Support the recommendations of the Regional Flood Mitigation Plan.
- 1.3.7. Encourage all roadways and utility lines to be designed and located to fit the existing topography and to avoid areas with slopes of greater than 15%.
- 1.3.8. Maintain natural drainage channels wherever possible as new development occurs, with particular focus on those areas with slopes greater than 15%.
- 1.3.9. Encourage the maximum retention of existing vegetation and topography as a site is developed, in both urban and rural areas. Encourage existing features to be incorporated into the development design to the maximum extent possible.
- 1.3.10. Encourage the long term conservation of forest resources through the balanced and multiple use of forest resources for recreation, tourism, scenic value, flood control, timber production and wildlife management.
- 1.3.11. Encourage property owners who wish to harvest their timber resources to develop a Forest Management Plan in cooperation with the Virginia Department of Forestry.

Strategy 1.4: Reduce per capita resource consumption.***Policies and Implementation Actions:***

- 1.4.1. Develop public education programs about resource consumption.
- 1.4.2. Structure utility fees to encourage conservation.
- 1.4.3. Encourage innovative land development that uses land efficiently.
- 1.4.4. Promote reuse and recycling.
- 1.4.5. Establish pilot program to expand recycling efforts.

Strategy 1.5: Identify and quantify air quality and noise concerns.***Policies and Implementation Actions:***

- 1.5.1. Evaluate, organize and share information about regional air quality

- 1.5.2. Avoid planning residential and other noise-sensitive uses adjacent to the interstate and adopt standards for such uses that ensure that both indoor and outdoor noise levels do not exceed FHWA standards
- 1.5.3. Monitor State and Federal regulatory activities regarding local air quality standards and enforcement.
- 1.5.4. Encourage compact and efficient land and road development patterns in order to minimize the increase in vehicle emissions.
- 1.5.5. Encourage the use of alternative travel modes such as rail, bicycle and pedestrian through a variety of methods including mixed use and clustered developments, recreational trail systems and pedestrian-friendly street designs.

Goal 2. Preserve the Scenic Beauty of the Landscape.
(farm fields, vistas, mountains, forests, open land, parks and recreation areas)

Strategy 2.1: Manage development in rural areas to minimize impact on County's character.

Policies and Implementation Actions:

- 2.1.1. Encourage rural development to be designed either as a very low density pattern or a cluster pattern.
- 2.1.2. Prohibit community water and sewer in rural areas, except for cluster development, in accord with County standards.
- 2.1.3. Limit rural residential development to 20% of total residential development in the County through changes to development regulations, targeted utility extensions and annual monitoring (repeated from Strategy 1.1).
- 2.1.4. Consider amending the Zoning Ordinance to include performance standards for development in mountainous and wooded areas that limit clearing and grading to ensure public safety and efficient delivery of public services.
- 2.1.6. Review special uses permitted in the A-1 and A-2 zones to remove those uses that are incompatible with rural character, and retain uses that support farm income.

Strategy 2.2: Protect visual resources.

Policies and Implementation Actions:

- 2.2.1. Compile a scenic resources inventory.
- 2.2.2. Based on a scenic resources inventory, consider designation of appropriate roads as Virginia Byways.
- 2.2.3. Evaluate the current sign and lighting regulations in the Zoning Ordinance; prepare amendments as needed.